

What is claimed is:

Sulr
C1
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~~1. A substantially purified prostate-associated kallikrein protein comprising the amino acid sequence of SEQ ID NO:1 or fragments thereof.~~

2. An isolated and purified polynucleotide sequence encoding the prostate-associated kallikrein protein of claim 1.

10 3. A polynucleotide sequence which hybridizes under stringent conditions to the polynucleotide sequence of claim 2.

4. A hybridization probe comprising the polynucleotide sequence of claim 2.

15 5. An isolated and purified polynucleotide sequence comprising SEQ ID NO:2 or variants thereof.

20 6. A polynucleotide sequence which is complementary to the polynucleotide sequence of claim 2 or variants thereof.

7. A hybridization probe comprising the polynucleotide sequence of claim 6.

8. An expression vector containing the polynucleotide sequence of claim 2.

25 9. A host cell containing the vector of claim 8.

10. A method for producing a polypeptide comprising the amino acid sequence of SEQ ID NO:1 the method comprising the steps of:

a) culturing the host cell of claim 9 under conditions suitable for the expression of the polypeptide; and

30 b) recovering the polypeptide from the host cell culture.

11. A purified antibody which binds specifically to the polypeptide of claim 1.

12. A purified agonist which specifically binds to and modulates the activity of the polypeptide of claim 1.

13. A purified antagonist which specifically binds to and modulates the activity of the polypeptide of claim 1.

14. A pharmaceutical composition comprising a substantially purified antagonist of claim 13 in conjunction with a suitable pharmaceutical carrier.

15. A method for treating cancer comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 14.

16. A method for treating disorders of the prostate comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 14.

17. A method for detection of polynucleotides encoding kallikrein in a biological sample comprising the steps of:

a) hybridizing the polynucleotide of claim 6 to nucleic acid material of a biological sample, thereby forming a hybridization complex; and

b) detecting said hybridization complex, wherein the presence of said complex correlates with the presence of a polynucleotide encoding kallikrein in said biological sample.

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C3

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E4